

ABSTRACT

[00191] A controlled polymerization process is described in which the polymerization free radically (co)polymerizable ionic monomers is initiated in the presence of a system initially comprising a transition metal complex, and an initiator comprising a radically transferable azide group. The process may include an excess of one or more uncomplexed ligand and at least a portion of the nonionic monomers may be polar monomers. The ionic monomer may be anionic or cationic.

[00192] A controlled polymerization process for the preparation of water soluble block copolymers including polymerizing radically (co)polymerizable monomers in the presence of a system initially comprising a water soluble macroinitiator, and a transition metal complex comprising one or more ligands is also disclosed.